

REMARKS

Claims 19-32 and 42-62 are pending in the present application. By this Amendment, the title has been amended; the specification has been amended; previously presented claims 19, 22, 26, and 31 have been amended; previously presented claims 1-18 and 33-41 have been canceled; and new claims 42-62 have been added. Applicants respectfully request reconsideration of the present claims in view of the foregoing amendment and the following remarks.

I. Formal Matters:

July 06, 2005 Telephone Interview

Applicants thank Examiner Juska for discussing the previous restriction requirements and status of drawings during a July 06, 2005 telephone interview. As shown above, withdrawn claims 1-18 and 33-41 have been canceled. Further, it is Applicants' understanding that the drawings filed on June 20, 2003 have been accepted.

II. Prior Art Rejections:

Claim Rejections Under 35 U.S.C. §102

Rejection of Previously Presented Claims 19-32 Under 35 U.S.C. §102(b) In View Of Yamanashi

Previously presented claims 19-32 were rejected under 35 U.S.C. §102(b) as anticipated by Great Britain Patent Specification No. 1,169,621 to Yamanashi Kasei Kogyo Company (hereinafter, "Yamanashi"). This rejection is respectfully traversed.

Applicants' claimed invention embodied by independent claim 19 is directed to a method of producing a unitary polymer substrate having a napped surface, wherein the method comprises the steps of providing a template surface comprising a release material and having a plurality of microdepressions therein; laminating a surface of a thermoplastic polymer substrate to the template surface such that a portion of the thermoplastic polymer enters into the plurality of microdepressions; and delaminating the thermoplastic polymer surface from the template surface while maintaining the thermoplastic polymer surface in a sufficiently softened state such

that a plurality of microfibers are generated on the thermoplastic polymer surface prior to debonding of the thermoplastic polymer surface from the template surface.

The disclosure of Yamanashi is directed to a method of manufacturing imitation leather materials. The disclosed method comprises (a) providing a laminate comprising a sheet of thermoplastic material adhered to one face of a fabric backing web; (b) providing a heated molding drum having multiple substantially conical depressions in an outer surface of the heated molding drum; (c) heating an outer surface of the thermoplastic material portion of the laminate to soften the thermoplastic material; (d) passing the laminate through a nip formed by the heated molding drum and a rubber roller such that the softened thermoplastic material is forced into the multiple substantially conical depressions; (e) cooling the backing web of the laminate to a temperature slightly above the softening point of the thermoplastic material; (f) stripping the laminate from the heated molding drum; and (g) allowing the thermoplastic material of the laminate to set.

In order for the disclosure of Yamanashi to anticipate Applicants' claimed invention embodied in independent claim 19, the disclosure of Yamanashi must disclose each and every claim element of independent claim 19. Applicants note that the disclosure of Yamanashi fails to disclose at least the following claim elements recited in independent claim 19:

(1) providing a template surface comprising a release material and having a plurality of microdepressions therein;

(2) laminating a surface of a thermoplastic polymer substrate to a template surface comprising a release material such that a portion of the thermoplastic polymer enters into the plurality of microdepressions; and

(3) delaminating the thermoplastic polymer surface from a template surface comprising a release material while maintaining the thermoplastic polymer surface in a sufficiently softened state such that a plurality of microfibers are generated on the thermoplastic polymer surface prior to debonding of the thermoplastic polymer surface from the template surface.

Since the disclosure of Yamanashi fails to disclose the above-mentioned claim elements recited in independent claim 19, the disclosure of Yamanashi cannot anticipate

independent claim 19. Since claims 20-32 depend from independent claim 19 and recite additional claim features, the disclosure of Yamanashi cannot anticipate dependent claims 20-32. Accordingly, Applicants respectfully request withdrawal of this rejection.

Claim Rejections Under 35 U.S.C. §103(a):

Rejection of Previously Presented Claims 19-32 Under 35 U.S.C. §103(a) In View Of Yamanashi In Combination With Bye and Giovanelli

Previously presented claims 19-32 were rejected under 35 U.S.C. §103(a) as being unpatentable over Yamanashi in view of U.S. Patent No. 4,451,419 issued to Bye et al. (hereinafter “Bye”) and U.S. Patent No. 4,076,874 issued to Giovanelli et al. (hereinafter “Giovanelli”). This rejection is respectfully traversed.

A description of Applicants' claimed invention embodied by independent claim 19, and a description of the disclosure of Yamanashi may be relied upon above.

As discussed above, the teaching of Yamanashi fails to disclose, teach or suggest a method of producing a unitary polymer substrate having a napped surface, wherein the method comprises the step of providing a template surface comprising a release material and having a plurality of microdepressions therein. The disclosed molding drum of Yamanashi does not comprise a release material. Further, the teaching of Yamanashi fails to disclose, teach or suggest a template surface, such as a molding drum, comprising a release material.

The Office Action acknowledges on page 5, lines 6 of the April 20, 2005 Office Action that the teaching of Yamanashi fails to disclose, teach or suggest a release material or a molding drum comprising a release material. The Office Action specifically states on page 5, lines 12:

Yamanashi is silent with respect to the release material. However, the use of said release materials for said template surface is known in the art. For example, Giovanelli teaches a tack spinning process wherein the backing roller or template surface is formed of a heat-resistant, resilient material, such as a non-stick polytetrafluoroethylene material or a silicone material (col. 2, lines 49-57). Hence, it would have been readily obvious to one skilled in the art to employ a release material for the template surface in order to facilitate the delamination process and to minimize clogging of the depressions.

Applicants disagree.

Applicants note that this portion of the teaching of Giovanelli relied upon by Examiner Juska is describing backing roller 212, not pile-forming heated roller 211. In column 2, lines 49-57, Giovanelli specifically discloses

In FIG. 2, a heated roller 211 (i.e., the roller forming the pile surface) is provided with a backing roller 212 which has a resilient layer 213 to from nip 214. The resilient layer is preferably heat-resistant because it may be required to provide heating means for roller 212. The resilient layer may also be coated with a non-stick material, e.g. "Fluon" (Trade Mark) or a silicone. Cooling means 215 are provided to cool and set the pile fibres as they break away from the roller 211.

Like the teaching of Yamanashi, the teaching of Giovanelli fails to disclose, teach or suggest a template surface comprising a release material. The disclosed heated roller 211 of Giovanelli does not comprise a release material as suggested in the Office Action. Further, the teaching of Giovanelli fails to disclose, teach or suggest a template surface having a plurality of microdepressions therein as recited in Applicants' independent claim 19.

It is respectfully submitted that the teaching of Bye fails to cure the above-noted deficiency in the combined teaching of Yamanashi and Giovanelli. The teaching of Bye is directed to an apparatus and process for making pile articles. The disclosed process comprises (a) providing a roller having a substantially smooth surface (i.e., a surface free from depressions) that can be heated; (b) bringing an outer surface of a thermoplastic material into contact with the heated substantially smooth surface of the roller to soften the thermoplastic material; (c) stripping the thermoplastic material from the heated substantially smooth surface of the roller to form fibrils between the substantially smooth surface of the roller and the thermoplastic material; and (d) cooling the thermoplastic material. See, for example, Bye, column 1, lines 59-62.

It should be noted that the teaching of Bye specifically teaches away from the teaching of Yamanashi, which discloses the use of a molding drum having multiple depressions therein. See, for example, Bye, column 1, lines 29-50. Although it is unclear to Applicants why one of ordinary skill in the art, given the teaching of Yamanashi, would seek out the teachings of Bye and Giovanelli given the divergent teachings, it is respectfully submitted that even if the

proposed combination of the teachings of Yamanashi, Bye and Giovanelli is proper (and Applicants submit that it is not), the proposed combined teaching of Yamanashi, Bye and Giovanelli still fails to disclose, teach or suggest Applicants' claimed method as embodied in independent claim 19. The proposed combined teaching of Yamanashi, Bye and Giovanelli fails to disclose, teach or suggest a method of producing a unitary polymer substrate having a napped surface, wherein the method comprises the step of providing a template surface comprising a release material and having a plurality of microdepressions therein.

The Office Action further states at page 5, lines 12-16:

Additionally, it would have been obvious to one skilled in the art to employ a polymer foam or a screen release material as the resilient material since it has been held to be within the general skill of a worker in the art to select a known material on a basis of its suitability for the intended use. *In re Leshin*, 125 USPQ 416. Therefore, claims 19-32 are rejected as being obvious over the cited prior art.

Applicants disagree.

It is respectfully submitted that the teachings of Yamanashi, Bye and Giovanelli, taken alone or in combination, fail to disclose, teach or suggest a method of producing a unitary polymer substrate having a napped surface, wherein the method comprises the step of providing a template surface comprising a release material and having a plurality of microdepressions therein, and especially the step of providing a template surface comprising a resilient material in the form of a polymer foam, a silicone rubber, or a screen. There simply is no suggestion in the cited art of such a template surface. As stated by the Court in *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990), "The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. (In *Mills*, claims were directed to an apparatus for producing an aerated cementitious composition by drawing air into the cementitious composition by driving the output pump at a capacity greater than the feed rate. The prior art reference taught that the feed means can be run at a variable speed, however the court found that this does not require that the output pump be run at the claimed speed so that air is drawn into the mixing chamber and is entrained in the ingredients during operation. Although a prior art device "may be capable of

being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so." *Id.* at 682, 16 USPQ2d at 1432.). See also *In re Fritch*, 972 F.2d 1260, 23 USPQ2d 1780 (Fed. Cir. 1992).

For at least the reasons given above, Applicants respectfully submit that a *prima facie* case of obviousness has not been made, and that the combination of the teaching of Yamanashi with the teachings of Bye and Giovanelli, even if proper, fails to make obvious Applicants' claimed invention as embodied in independent claim 19. Since claims 20-32 depend from independent claim 19, and recite additional claim features, Applicants respectfully submit that the combination of the teaching of Yamanashi with the teachings of Bye and Giovanelli also fails to make obvious claims 20-32. Accordingly, Applicants respectfully request withdrawal of this rejection.

III. New Claims 42-62:

New claims 42-62 are directed to further aspects of Applicants' claimed invention. New independent claim 42 is directed to a method of producing a unitary polymer substrate having a napped surface, wherein the method comprises, *inter alia*, the steps of (i) providing a resilient template surface having a plurality of microdepressions therein; (ii) laminating a surface of a thermoplastic polymer substrate to the resilient template surface such that a portion of the thermoplastic polymer enters into the plurality of microdepressions; and (iii) delaminating the thermoplastic polymer surface from the resilient template surface while maintaining the thermoplastic polymer surface in a sufficiently softened state such that a plurality of microfibers are generated on the thermoplastic polymer surface prior to debonding of the thermoplastic polymer surface from the resilient template surface. New claims 43-55 depend from new independent claim 42 and recite additional claim features.

New independent claim 56 is directed to a method of producing a unitary polymer substrate having a napped surface, wherein the method comprises, *inter alia*, the steps of (i) providing a resilient template surface having a plurality of undercut-shaped microdepressions therein; (ii) laminating a thermoplastic polymer substrate to the resilient template surface such that a portion of the thermoplastic polymer enters into the plurality of undercut-shaped

microdepressions; and (iii) delaminating the thermoplastic polymer substrate from the resilient template surface while maintaining a surface of the thermoplastic polymer substrate in a sufficiently softened state such that a plurality of microfibers are generated on the thermoplastic polymer surface prior to debonding of the thermoplastic polymer substrate from the resilient template surface. New claims 57-58 depend from new independent claim 56 and recite additional claim features.

New independent claim 59 is directed to a method of producing a unitary polymer substrate having a napped surface, wherein the method comprises, *inter alia*, the steps of (i) providing a template surface comprising a release material and having a plurality of microdepressions therein, said microdepressions have a non-release surface therein; (ii) laminating a thermoplastic polymer substrate to the template surface such that a portion of the thermoplastic polymer enters into the plurality of microdepressions; and (iii) delaminating the thermoplastic polymer substrate from the template surface while maintaining a surface of the thermoplastic polymer substrate in a sufficiently softened state such that a plurality of microfibers are generated on the thermoplastic polymer surface prior to debonding of the thermoplastic polymer substrate from the template surface. New claims 60-62 depend from new independent claim 59 and recite additional claim features.

Support for new claims 42-62 may be found in at least the following locations within the original specification: page 16, lines 1-9 (claim 42); page 13, lines 21-24 (claims 43 and 56); page 14, lines 1-7 (claims 44-47 and 57-58); page 16, lines 19-28 (claims 48 and 59-62); page 14, line 30 to page 15, line 8 (claims 49-50); page 17, lines 14-20 (claims 51-52); original claims 31-32 (claims 53-54); and page 8, lines 13-14 (claim 55).

Applicants respectfully submit that new claims 42-62 are patentable over the art of record for at least the reasons given above with regard to claims 19-32.

IV. Conclusion:

For at least the reasons given above, Applicants submit that claims 19-32 and 42-62 define patentable subject matter. Accordingly, Applicants respectfully request allowance of these claims.

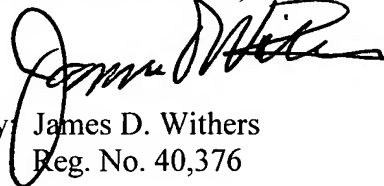
Amendment And Response
Serial No. 10/600,966

No additional fees are believed due; however, the Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, to Deposit Account No. 503025.

Should the Examiner believe that anything further is necessary to place the application in better condition for allowance, the Examiner is respectfully requested to contact Applicants' representative at the telephone number listed below.

Respectfully submitted,

WITHERS & KEYS, LLC


By James D. Withers
Reg. No. 40,376

WITHERS & KEYS, LLC
18 Atlanta Street
McDonough, Georgia 30253
678-565-4748

Attorney No. 10002.0110US01
3M Docket No.: 52769US006